Special Issue

Application of Plasma Technology in Bioscience and Biomedicine

Message from the Guest Editors

Plasma technology has been an integral part of life sciences research for decades through its role in the manufacture and modification of material surface characteristics of many common laboratory consumables.

Plasma can elicit a wide range of biological effects predominantly based on the action of various reactive species generated in the discharge which can modify biomolecules, affect cell growth and behaviour or inactivate microorganisms. Plasma deposition is used for generating material coatings with particular biological functions. Plasma-activated/treated liquids generated by exposing liquids to a plasma discharge can achieve many of the aforementioned biological effects induced by direct plasma due to a retention of longer-lived plasma reactive species. Recent years have seen cold plasma move into the clinic for its use in wound healing, and further applications are likely to follow.

In this Special Issue, we would like to cover the breadth and diversity of plasma technology in bioscience and biomedicine and provide a snapshot of some of the exciting research currently happening in this field.

Guest Editors

Dr. Daniela Boehm

College of Sciences and Health, Technological University Dublin, Dublin D7, Ireland

Dr. Cristina Canal

Department of Materials Science and Metallurgy (CMEM), Universitat Politècnica de Catalunya (UPC), 08034 Barcelona, Spain

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Applied Sciences
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
applisci@mdpi.com

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As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multidimensional network.

Editor-in-Chief

Prof. Dr. Giulio Nicola Cerullo

Dipartimento di Fisica, Politecnico di Milano, Piazza L. da Vinci 32, 20133 Milano, Italy

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